

REMARKS

Claims 1-9, 17, and 19-23 are in the application. Claims 16 and 18 have been canceled by the foregoing amendment and claims 1 and 17 have been amended to more clearly and distinctly claim the invention. Support for the amendment to claims 1 and 17 can be found in the specification and in FIGS. 4-6. No new matter is entered into the case by the amendment.

In the Office Action, claims 1-4, 7-9, 17, 19 and 22-23 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,286,941 to Courian, et al. Claims 5 and 20 were rejected under 35 U.S.C. §103(a) as being unpatentable over the '941 patent in view of U.S. Patent No. 6,024,440 to Murthy et al. Claims 6 and 21 were rejected under 35 U.S.C. §103(a) as being unpatentable over the '941 patent. The rejections are respectfully traversed.

A. Claims 1-4, 7-9, 17, 19 and 22-23 Are Not Anticipated by the Cited Reference.

In the §102(b) rejection of claims 1-4, 7-9, 17-19 and 22-23, the '941 patent to Courian et al. is cited. In the '941 patent, the ink is supplied to the vaporization chambers from the ink reservoir through grooves and a plenum rather than directly from an ink reservoir to the vaporization chambers through channels. The '941 patent teaches away from any flow channels or grooves that extend between the ink reservoir and the plenum or vaporization chamber. See column 2, lines 46-51 of the '941 patent wherein it is stated that "... ink is not permitted to flow directly from the ink reservoir to the plenum or vaporization chamber, ..." By contrast, applicants channels directly connect the ink feed slot with the ink chambers. Accordingly, all of the elements of the claimed invention are not provided by the '941 patent.

It is well settled law that anticipation requires that each and every limitation of the claims be found in the cited reference, either explicitly or inherently. Since the '941 patent fails to teach, suggest, or disclose, and actually lead away from the use of direct flow channels in the thick film layer for flow of ink from an ink feed slot to ink ejection devices, the rejection of claims 1 and 17 over the '941 patent is untenable and should be withdrawn. Thus, claims 1 and 17 are not anticipated by the '440 patent.

Claims 2-4 and 7-9 depend from claim 1 and claims 19 and 22-23 depend from claim 17 and provide additional inventive features. Claims 2-4, 7-9, 19, and 22-23 are patentable over the '941 patent for the same reasons claims 1 and 17 are patentable over this reference. Reconsideration and withdrawal of the rejection of claims 1-4, 7-9, 17, 19, and 22-23 is believed in order and is respectfully requested.

B. Claims 5 and 20 are Patentably Distinguished Over the Cited References.

Claim 5 depends from claim 1 and claim 20 depends from claim 17. Claims 5 and 20 are patentable over the '941 patent for the same reasons claims 1 and 17 are patentable over the '941 patent as discussed in Section A above.

The '440 patent is not properly combined with the '941 patent to provide all of the elements of the claimed invention. As set forth above, the '941 patent leads away from the use of an ink flow channel for flow of ink directly from an ink reservoir to the vaporization chambers. Accordingly, there is no motivation in the '941 patent to provide the channels 40 described in the '440 patent only formed in the nozzle member 18 in combination with the grooves and plenums of the '941 patent. Likewise, there is nothing in the '440 patent that suggest use of the nozzle member 18 and a thick film layer as required by the '941 patent.

COMBINATION OF REFERENCES

The MPEP outlines three conditions that must be met for a prima facie case of obviousness to be made out. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art references must teach or suggest all the claim limitations.

The statements of the examiner in regard to the motivation to combine the references amount to no more than conclusory statements of generalized advantages and convenient assumptions about what was known by skilled artisans.

It is a requirement in making out a prima facie case of obviousness that all of the limitations of the claims must be taught or suggested by the cited references. However,

the examiner has failed to find all of the claimed elements of claims 5 and 20 in the combined references as described above. Because the combined references fail to provide all of the elements of the claimed invention, no prima facie case of obviousness has been made out by the examiner. Since, the '440 patent is improperly combined with the '941 patent, the rejection of claims 5 and 20 is untenable and should be withdrawn.

C. Claims 6 and 21 are Patentably Distinguished Over the Cited Reference.

Claim 6 depends from claim 1 and claim 21 depends from claim 17. Claims 5 and 20 are patentable over the '941 patent for the same reasons claims 1 and 17 are patentable over the '941 patent as discussed in Section A above. Furthermore, the '941 patent does not suggest the range of thickness of 5 to 15 microns set forth in claims 6 and 21. In the '941 patent, the range of thickness of the barrier layer 62 is said to be 0.75 to 1 mil thick (19.05 to 25.4 microns). This range is manifestly outside of the range set forth in claims 6 and 21 of 5 to 15 microns. Accordingly, there is no suggestion in the '941 patent to use a range of thickness lower than the 0.75 mils set forth in column 7, lines 15-18 of the '941 patent. Since the '941 patent fails to teach, suggest, or disclose all of the limitations of claims 6 and 21, the rejection of claims 6 and 21 is untenable and should be withdrawn.

Applicants do not intend to surrender any range of equivalents under the Doctrine of Equivalents in regard to any claim limitation that appears in the final claims in any patent that may issue from this or any related application. Applicants expressly reserve the right to resort to the Doctrine of Equivalents for all limitations in regard to any future assertion of infringement of any claim, whether the limitation was present in an original claim, added by amendment to a claim, or referenced in any argument to distinguish any claim from any prior art. All claims in any patent issued from this or any related application represent a statutorily presumed valid and patentable combination of structure and/or steps, and it is this combination which is presumed to patentably distinguish the claims from the prior art, not any particular limitation of any claim.

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In the event this response is not timely filed, Applicants hereby petition for the appropriate extension of time and request that the fee for the extension along with any other fees which may be due with respect to this paper be charged to our Deposit Account No. 12-2355.

If the Examiner identifies further issues which may be resolved by telephone, the Examiner is kindly invited to contact the undersigned at (865) 546-4305.

Respectfully submitted,

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